

Circuit

A monthly employee publication of the Bonneville Power Administration

For the past year, BPA has been metering and checking its electric use at the Portland headquarters building. Although BPA's electric bill is high, the metering project isn't so much to check on PacifiCorp's bills.

According to Phil Choma of energy efficiency's customer services, BPA's interest in the meters is mainly for business. "Our drive to do this was to find another value-added thing we could do for our customers – for energy efficiency," Choma says.

BPA began the metering project, Choma says, "to learn the technology of electronic and remote meter reading and data collection. We then want to share that information with our customers so utilities can see how it could help them."

BPA first installed and used equipment from Elutions Co. (formerly TeCom Inc.). Later, American Innovations (AI), approached BPA about using their equipment and system. So now BPA can show other utilities and customers how metering systems work to measure real energy use.



Phil Choma checks the penthouse meter computer (top right) that records the fifth floor power scheduling room energy use. (Bottom), Choma calls up data from two meters installed at Clark County Public Utility District in Vancouver, Wash.

Meter tests can help customers and BPA

Choma says, "we quickly found two other benefits from the deal. BPA is learning a lot about our building and we could possibly use this technology for our General Services Administration (GSA) customers."

The BPA metering system monitors three meters in the HQ building. One is the PacifiCorp revenue meter in the basement. Two others are BPA submeters on the eighth floor. Those are checking the power source that feeds the fifth floor and power scheduling center.

Besides the meter checking at headquarters, Choma says BPA recently set up a

separate computer with software to read data from other AI modules around the region. The equipment is now reading two meters at Clark County PUD in Vancouver, Wash. Around May, he says, BPA will probably add three more meters to read in the city of Heyburn, Idaho.

Choma says that each of the two systems BPA is now using has distinct advantages.

The BPA building monitor uses a computer right at the meter. It's a small board that can store the building's data for up to two months.

Choma says he calls up that computer with his laptop every month or so and dumps the data to his PC. "This type of system is good for large load industrial or commercial customers," he says.

"The off-site tests are using a system better suited for utilities," Choma says. Instead of computer operators having to call up to get the computers to dump data, the meter system itself calls out. "It uses a telephone line at the

meter. The module is programmed to call an 800 number in early morning hours to download the data to BPA's computer," Choma says.

In addition, these systems can call up and display near real time energy use. BPA is now working with GSA and may soon begin to meter the 911 federal building also. ◀

This summer, BPA will replace the highest tower on its system. The 90-foot tower stands at about 8,600 feet elevation in Teton Pass, Wyo. It carries a 115-kilovolt line from Swan Valley, Idaho, to Teton, near Jackson, Wyo.

BPA will build a new tower that will be stronger and slightly taller. It

will carry two 115-kV lines into the northwest Wyoming corner around Grand Teton National Park and the Jackson Hole recreation

area. The new line will help meet the higher energy use from growth in the area.

The BPA line from Swan Valley to Teton is the highest elevation line on BPA's power grid. BPA will be able to convert the top designs of many of the towers so they can carry the two circuits. But others, such as the highest one in Teton Pass, have to be replaced with larger, stronger towers.

Lou Driessen is project manager for the work. He said the power line makes a 90-degree turn at the highest elevation tower, and it would have too much pressure on it with two lines. Other tower changes have to take into account sag from winter ice buildup and the annual snowfall of more than 10 feet. ◀

Highest tower to be replaced

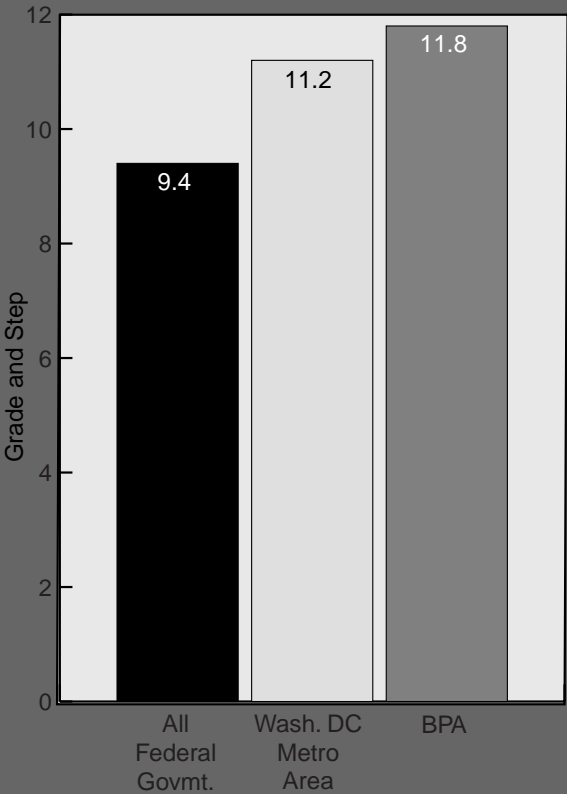


This 90-foot tower stands in Teton Pass in northwestern Wyo. At 8,600 feet elevation, it's the highest tower in BPA's power grid. BPA will build a new tower here to carry two 115-kilovolt lines in place of the present single line. Lou Driessen, project manager, stands near the left front leg – dwarfed by the tower and setting.

BPA field photo

Federal Grade Levels

Average grade level of General Schedule (GS) employees in the federal government. Does not include employees outside of GS system.



Sources: Office of Personnel Management and BPA.

Rise and shine sports fans, Earth Day is upon us

The days may be getting longer as we edge into spring, but the time is getting shorter. And unlike the replays and replays without end in the movie, "Groundhog Day," this year's Earth Day is locked in for a single showing – on April 22.

But BPA event chief Cheri Larson and her trusty team of eager beavers have stretched and pulled on the 2000 date to spread it out into a full week for employees to test the theme, "Clean Energy Now!"

Beginning April 17, BPA will hold a variety of brown bag noontime talks on good earth and clean energy topics. During the week before the official day, volunteer employees will plant hundreds of trees at the Sandy River Delta near Troutdale, Ore., and along the Ellen Davis Trail at the Ross Complex in Vancouver, Wash.

Volunteers in the Puget Sound area will plant trees with the Snohomish River enhancement task force. And BPA folks in other areas will help with a variety of local projects.

Employees can take part in these and other events and you don't have to wait for Earth Day to

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The Business Solutions Project train has left the station and is heading for stops that will include nearly all employees. When will it get to your stop? "If you've heard a lot about the BSP," says Kammy Rogers-Holliday, training and communications lead for the BSP, "You are at an early stop. If you've heard little about the project, you're at a later stop."

Training is now underway for the people most immediately affected in preparation for the "go-live" date in early July. At that time, BPA will begin to enter all new financial data into the new BSP systems. The current "legacy" systems will contain historical data only.

You may not have heard about the training because the project is using what is called "just-in-time training." Roughly translated, that means people will receive their training close to the time the new system is available for their use.

The BSP team is using this approach because studies show that people who are trained early tend to forget their training because they don't use the new system immediately afterward. Early training on the new software would likely go the way of your high school French.

Sign-up for training begins in mid-April. More classes will be offered in May and June as we near the switch to the new financial systems in July.

Everyone will hear more about BSP from now on – from your manager. Supervisors and manag-

BSP train heads your way

ers have been receiving briefings and training in how to explain the project to employees since March. First-line managers are bringing the BSP message to employees. "BSP will bring BPA into the forefront of efficient, accurate financial and work management systems," says Administrator Judi Johansen. "The preparation work is almost complete. Now it's up to managers across BPA to help their people learn to use the new system effectively."

How many people will be riding the BSP train? Eventually everyone at BPA will be riding it. The actual impact on individual jobs will vary. In many cases the impact will be very light, affecting employees only when they fill out their timesheet. They will be entering work orders, tasks and activities instead of PL-6s. Others will feel more of an impact. Employees working in purchasing, materials handling and work order management will be heavily affected. So they get training early.

The training is not just for the Portland/Vancouver area. A team of trainers will be out in the regions to train field crews. The major effort in Transmission will not take place until late fall when the field work management portion of the

new system is put in place.

And about 1,200 people across the agency will receive "system navigation" training. Basically, that means they will get an overview of the new PassPort and PeopleSoft software so they can retrieve the new versions of standard reports.

"We won't know the impact of the new system on employees and on BPA for at least six months after implementation," says Tom Thompson, BSP project lead.

The point of the system is to create efficiencies in the way data is gathered and analyzed. For example, the new system will let BPA bill customers more quickly and accurately. BPA will instantly know its financial picture. It will have immediate access to project and asset management information and the ability to control costs.

These are all capabilities the agency has been lacking for years. The BSP will even make it easier for BPA to make decisions on how to approach the formation of a regional transmission organization. It will provide the necessary information that wasn't available under BPA's older, cobbled-together systems.

In fact, the new system is capable of being used by an RTO because it is industry specific rather than government specific. That puts BPA in a very good position to be ready for the RTO. ◀

Ian Templeton is a writer in communications

Frugal fridges move from Ross

A year ago BPA teamed up with Portland General Electric and the Oregon Office of Energy for a pilot conservation program. It would save energy and help hold down the costs for owners and renters of low-income multifamily housing.

The state energy office provided an interest-free loan to PGE to buy energy-efficient apartment-sized Maytag refrigerators. PGE sells the units to owners or managers of multifamily low-income housing. BPA stores the fridges at the Ross warehouse and loads them for delivery.

Bill Murray stacks energy-efficient refrigerators on shelves at the Ross warehouse. BPA is a partner with Portland General Electric and the Oregon Office of Energy to help put energy-saving refrigerators into low-income apartments.

Photo by Jack Odgaard



The fridges sell for about 15 percent below retail. The cost saving makes them more attractive to apartment owners, and the energy savings help keep the utility costs down for the owners and renters alike.

The pilot program began in March 1999. BPA initially got six dozen fridges. More than half of those went out in the first three months and BPA took another delivery of 72 refrigerators. By the end of September, in a little more than six months, the first six dozen fridges were sold and moved into housing.

Bill Murray, who loads and tracks the fridges, says that the program slowed down over the fall and winter. So far this year, only six more fridges have gone out. But BPA is ready to load them out the door when the buyers pull up. ◀

Circuit

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Earth Day, continued from page 2

get going. Everyone can take part in the first BPA regional clean energy challenge. And you can make it a fun effort for your whole family.



The challenge involves 21 everyday practices or things people do in which they can save energy. This first year's contest in the pledge challenge is between BPA's seven regions, the Ross Complex and headquarters. So it crosses business lines and work groups and neighborhoods.

In future years, BPA may expand the challenge to other specific groups, but that's for another year.

By the time you read this *Circuit* article, this year's challenge pledge will be available on BPA's internal home page (<http://webip1>). Just go there and click on the Earth Day button. That's the one that looks like Smiley Earth with an earthy smile.

Then click on the challenge for the pledge form and instructions. Take the form home, talk it over with your family and submit it back at work.

Then start practicing your selections for the week of April 17.

That's all there is to it. At the end, the Earth

Day team will announce the BPA location that has the highest energy savings per capita. You'll be the green kings for a year and all the rest of us will just be green with envy. ◀

-- Jack Odgaard, editor

Multi-agency effort will boost Columbia River assets

Changes are coming to the Federal Columbia River Power System (FCRPS). Anyone interested in new, exciting work at the cutting edge of that change should consider the ad pictured with this article.

BPA's federal hydro projects group is taking part in an effort that will improve the operation of the FCRPS. The work comes under a multi-agency team that is implementing the recommendations of a report called the Asset Management Strategy (AMS).

The AMS developed out of the 1997 regional cost review panel. It recommends steps needed to restore the FCRPS to industry standards. It covers such things as reliability, maintenance practices, the material condition of the projects and processes that support the operations.

The time is right for this work to begin, says Roy Fox, federal hydro projects manager. "Over time, the condition and performance level of the FCRPS has declined," he says. "The business environment in which the FCRPS operates is highly competitive. This work is important, and that's why we're looking for a few good people to help us get it done."

Work will include travel and problem solving in a multi-agency environment. "If you're looking for rewarding, challenging work, this is the place you want to be," says Fox.

Bringing the FCRPS plants up to industry standards or better will require an investment of \$825 million over the next 13 years. An additional \$150 million will buy more gains in efficiency that will further increase FCRPS revenues.



The team that is working on the AMS has members from each of the Columbia River operating agencies. Those are the U.S. Army Corps of Engineers, the Bureau of Reclamation and BPA. Energy Northwest is also helping with the work.

"The strategy is just that – a strategy," says BPA's Jim Clune. "It doesn't answer many of the 'how' questions. We first needed to answer the 'why' questions. Then we needed to figure out an overall strategy to identify and prioritize system needs."

He says, "Finally, we determined how much we would need to spend to get the maximum benefits for the future. The AMS does all of this very well." ◀

Perry Gruber is a press officer in communications

Remember the old saying, "Practice makes perfect?" It's generally true for musicians as well as others. But, at times, music events fall far short of being perfect in spite of the best practice regime. Accidents and unforeseen problems can mar a performance. The smallest little thing out of order can create a calamity. When the disorder is discovered, it's usually too late to do anything but to go on – with a flushed face at the very least.

Fortunately, another old saying is also true. Time does heal most of the "wounds" from the embarrassing moments of musical mishaps. So

Band members bare all ... moments of musical madness

today people can look back and laugh at their miscreant moments of the past.

The March *Circuit* ran a centerfold feature on RIF and the Early Outs. We couldn't do justice then to the stories about embarrassing events. So we've put together the musical mishaps of six BPA band members. The *Circuit* and the players hope you'll enjoy their moments of musical madness.

The one thing all the BPA players had in common was that their mishaps were all out in full public view, thus their embarrassment. Some dropped or lost music or parts of their instruments. For others, their "memorable" experiences were like something right out of an Abbott and Costello movie.

Neal Adolf lost his trumpet mouthpiece during a parade. He dropped out and backtracked and was able to find it quickly and return to the formation. But Bob Sinclair wasn't so fortunate. He remembers the first song that RIF and the Early Outs played in public – "Basin Street Blues." "A second before the downbeat I knocked my music off the stand. When I bent over to pick it up, my slide (trombone) fell out and onto the floor. About one-third through the number I caught up with the rest of the band."

In his first year with the One More Time Around band in the Rose Festival parade, Harold Grappe says his bag with two pairs of drumsticks fell off his drum. "I couldn't stop to pick it up or we'd have had a pile up," he says. "Luckily, a kid from the crowd saw it. He dove under a bass drummer and grabbed the bag. He jogged up and handed it to me and I didn't miss a beat."

Mike Street's embarrassing moment was also in the Portland Rose Festival parade – only with the Benson High School band. "We had painted Army surplus helmet liners for hats back then," he says. Just before a turn, his tuba bell knocked his helmet down over his eyes. "I continued to march straight. When I got my helmet back in place I saw to my horror that the band had made a turn and was half a block away."

Lou Tauber remembers 1990 when he walked on stage to play the solo in Mozart's clarinet concerto. "The room was dead quiet and the conductor was just about to give the downbeat when I heard the innocent voice of my three-year-old daughter say, 'Hi, Daddy!'" Tauber says, "The audience laughed, the orchestra laughed, the conductor laughed and I had to laugh as well. It loosened me up enough to give a good performance." ◀



Madcap musicians "replaying" embarrassing moments from their musical pasts? Actually, the six members of BPA's band, RIF and the Early Outs, just hammed it up for this photo. It just goes to show that (left to right) Neal Adolf, Mike Street, Harold Grappe, Lou Tauber, Mike Miller and Bob Sinclair can laugh about their musical miscues of times past.

Photo by Jack Odgaard

RIF and the Early Outs band-leader Mike Miller could claim the trophy hands down in a most-embarrassing musical event contest. In a high school Christmas concert, Miller was responsible for the trumpet section. The group was away from the main band on a perched balcony where a power cord was run to light their music.

"A minute before the conductor's downbeat, our lights went out," Miller says. "We couldn't see the music so we had to wing it. There was no way to explain to the audience that we couldn't see the music. We failed miserably," he says. Miller says he heard some feedback to the conductor afterwards. "This was the worst performance I have ever heard," one person said. He continued, "Where in the h— did you get those musicians?" ◀

Suzy Sivyer in Transmission helped interview players for this article.
– Jack Odgaard, editor

Canyon club confers checks to charities

The Ross Canyon Club held its first social event of the year at the end of March. About 80 people from the Ross Complex attended the club's spring potluck and picnic at the warehouse. The group also made its first donations to local charities for the year.

Mike Conners, from the warehouse, presented two checks of \$500 from the last of the club's 1999 fund-raising events. The donations went to the Clark County Equal Opportunity Committee's Early Headstart Program and to the Vancouver YWCA.

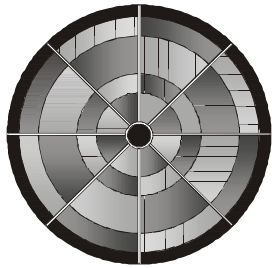
Diane Uphoff accepted the check for the Early Headstart Program. She said the funds would be used to buy playground equipment for toddlers at the Early Head Start site in Hazel Dell.

Sharon Welch accepted the award for the YWCA. The funds will help buy materials for the Y's sexual assault program that helps children and their families.



Ross Complex employees attended the first social event of the Ross Canyon Club for 2000. The late March event drew about 80 people to the main warehouse. The group donated two checks of \$500 to local charities. (Top) Mike Conners presents a check to Sharon Welch for the YWCA sexual assault program that helps children and their families.

Photos by Jack Odgaard



TARGETS
2000

at mid-year



Targets	Status	Background
<ul style="list-style-type: none">An RTO plan that provides a core role for BPA's people and physical assets is formulated by the region so that transmission owners can meet the FERC filing deadline.	On Track	We are well on the way to meeting this target. The region is coming into alignment on the RTO issue but much work remains. The exact nature of the filing, for example, still needs to be worked out.
<ul style="list-style-type: none">On track to achieve a regional Unified Fish & Wildlife Plan by FY2001 that meets BPA's fish and wildlife obligations: (a) establishment of performance standards and other hydropower system measures; and (b) requirements set for "off-site" mitigation of hydro impacts (e.g., hatchery, habitat, harvest programs); while (c) preserving below-market at-cost power.	On Track	(a) Performance standards are covered in consultations with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service. (b) BPA is participating in the Northwest Power Planning Council's Fish and Wildlife Program amendment process and consulting with NMFS to set requirements. (c) The Power rate case is intended to accomplish this.
<ul style="list-style-type: none">Revised performance management system is implemented by 1/2000 for VPs and performance managers who report to them.	Completed	VPs and the performance managers who report to them have re-balanced their contracts to reflect 51 percent attention to HPO-related items.
<input type="checkbox"/> Composite agency customer satisfaction index in the range from 7.3 to 7.6.	On Track	Survey due from contractor in mid-August.
<input type="checkbox"/> Tribal government satisfaction index in the range from 6.5 to 6.8 and composite state/federal entities and constituent satisfaction index in the range from 6.9 to 7.2.	On Track	Survey due from contractor in mid-August.
<ul style="list-style-type: none">High system reliability/availability/sufficiency:<ul style="list-style-type: none">Transmission: Outage frequency and duration for transmission circuits do not exceed Control Chart violation limits; andGeneration: Weekly Heavy Load Hour targets for available generation are achieved.	On Track	We're fully on track for compliance through first quarter FY00. The next quarterly report is due out in late April.
<input type="checkbox"/> Agency internally managed costs in the range from \$899 million to \$879 million.	On Track	On track based on the 1st Quarter Review. The 2nd Quarter Review will not be available until the second Tuesday in May.
<input type="checkbox"/> Treasury payment is made on time and in full, with agency hydro-adjusted net revenues in the range from \$1 million to \$36 million.	On Track	On track based on the 1st Quarter Review. The 2nd Quarter Review will not be available until the second Tuesday in May.
<input type="checkbox"/> Recordable lost-time injuries are in the range from 1.7 to 1.2 per 200,000 hours worked (100 employees) and no fatal injuries occur to BPA or contract employees working on BPA facilities.	On Track	Through February our lost-time case rate is 1.5.
<ul style="list-style-type: none">Biological Opinion spill requirements and reservoir operations criteria are met unless the operations criteria are unnecessary for meeting spring/summer flow targets.	On Track	2000 Biological Opinion operations are on track. We expect to meet the April 10 reservoir operation requirements.
<ul style="list-style-type: none">Significant progress toward BPA's HPO vision for a great workplace environment.	On Track	Results from the employee survey are due from the contractor no later than August 31, 2000.
<input type="checkbox"/> Phase 1 of the Business Solutions Project (BSP) goes into service in the period 6/30/00 to 9/30/00.	On Track	Starting in July, all business transactions will be processed in PeopleSoft/PassPort, as will the annual audit.

☐ Success Share targets



When 30 sixth-graders recently descended on BPA's Portland headquarters building, Phyllis Evans was there and knew just what to do. Evans is BPA's education coordinator.

"I think of my job as one of BPA's public purposes," says Evans. She coordinates an education outreach program that includes many opportunities for employees to volunteer. Evans handles most of the education activities for the Portland metro area, and she also coordinates BPA's computer donations to schools across the Northwest.

Evans would like employees to know that volunteering doesn't have to require a big time commitment. The 30 sixth-grade students, from Gordon Russell Middle School in Portland, recently visited the Portland headquarters building for two hours. Several employees volunteered to speak to the students and others volunteered to lead the students on tours of offices in the headquarters building. Most employees spent an hour or less with the students.

Evans has worked at BPA for 16 years. Eight of those were spent supporting BPA's liaison to the Northwest Power Planning Council. Evans says she has enjoyed all her jobs at BPA and her present job most of all because "almost everything I do is gratifying. Employees have said some of their best days are the days they spend with students."

Evans represents BPA as a member of the board of the Business Education Compact, a consortium of business leaders and educators that make up the backbone of Portland's school-to-work program. Oregon requires students to do job shadows and internships before they graduate from high school. Evans gets most requests for job shadowing, where one or more students spend three hours with an employee learning about that person's job.

Ernie Estes, a lawyer with more than 20 years of experience, volunteers by having students "shadow" him. Estes recently spent three hours with four students who would like to be lawyers. Estes says that working with students "provides me with an opportunity to contribute to the community. We get better lawyers when kids know what they're getting into."

Evans is quick to point out that the volunteers make the program successful. "We have fantastic volunteers, skilled in a variety of areas. The people make it work," she says.



Students, shadows and mentors met when this group took a break outside. BPA attorney Ernie Estes likes to mentor and help high school students. He's one of several employees who volunteer in a couple dozen education programs to help in local communities. These four students from three high schools shadowed Estes one afternoon in early March.

Photo by Jack Odgaard

Deb Malin, Pat Zimmer and Greg Drais are three employees who help make the program work. They are volunteering at Centennial High School this year in its experiential school program. Malin and Zimmer are working with students to explore the issue of breaching the four lower Snake River dams.

Drais first participated in the program 10 years ago. He says he participates because, "I saw kids who had no interest in school be turned on to school the next week."

If you're thinking it may be difficult to work with students and still get your work done, Drais points out that he works with students "in a way

participate in activities that promote science and engineering with kids," he says. And Quinata says quite a few other people he knows at BPA are also frequent volunteers.

Among them is Jarvis Burton, an electrical engineer at Ross, who helps mentor high school students in Vancouver. Rita Copperrall, an electrical engineer at Ross, helps with an elementary science bowl that the Oregon National Guard sponsors. Debra Coleman, an electrical engineer from Portland, volunteers for the Northwest Science Expo.

Tom and Linda McKinney are fish and wildlife specialists at Portland. They got involved with education programs when their kids were in school. The kids are grown now, but the McKinneys still volunteer for the Invention Convention each year. So too does Robin Furrer, Ross maintenance coordinator.

Quinata helps with most of these programs himself, plus some others. He has been the Department of Energy's unofficial representative the past few years at some events. He presented the DOE energy award at the Northwest Science Expo held at Mt. Hood Community College the past two years. Quinata says other people still help with Hands on Science and similar programs that BPA pioneered years ago and then turned over to schools and other groups. He also volunteers for another program, Odyssey of the Mind.

BPA folks truly are BPA's link to education in the communities we serve. ◀



Lineman Mike Roan from Redmond talks about BPA field jobs with a Klamath Falls high school student in late February. Roan helped Malin electrician Shannon Reichart (right) and substation operator Chuck Powers.

Photot by Chuck Powers

that they are not an intrusion. I'm doing my work and they happen to be there."

Art Ashton, manager of BPA's aircraft services, speaks to students at schools to let them know about careers in aviation. He also hires summer interns and encourages his employees to participate in education outreach. Ashton says, "There will be a severe pilot and mechanic shortage in the next five to ten years."

He hopes by their exposure to aviation, some students will choose a career flying or working on airplanes and helicopters. His last summer intern is in a college ROTC program and will join the military to learn to be a helicopter pilot after he graduates. Ashton works with students because, "If I can give kids an interest, they will be able to focus and go on to pursue that interest."

Evans says employees may volunteer to mentor a student, committing to spend 24 hours with a student during a school term. Other opportunities include representing BPA at career fairs, participating in reading programs by helping children learn to read, and conducting mock interviews to help students prepare for job interviews. Volunteers can also help students by doing information interviews over the telephone.

"Employees who volunteer are generous people," Evans says. "Time is precious and to make time for others is a very generous thing to do. Volunteering engenders the support and spirit of public service."

Evans would like to expand the program to Vancouver and other locations in the region. Steve Lowder and Mick Johnson already offer students tours of the high voltage and mechanical labs at the Ross Complex. Evans has displays and educational materials that are available to all employees and she would be happy to help anyone find a volunteer opportunity.

BPA encourages and endorses the education outreach program and grants administrative leave for some volunteer projects. If you'd like to know more about the education program or would like to volunteer, call Phyllis Evans at x5341 in Portland. ◀

Nicia Balla edits *BPA This Week* and the *BPA Journal*

Others help in education efforts

Many other BPA folks help in education programs around the region. Most volunteer on their own, and some folks recruit others for special education efforts.

Let's look at some recent efforts around the region. Two Puget Sound area employees helped in school programs in February. Kathi Youngs from Covington Substation gave a program at the Sherwood Forest Elementary School in Federal Way. She explained how we get power from hydro dams to our customers.

Mike Huber is an electrical engineer at Seattle who coached several schools for the YMCA Earth Service Corps environmental symposium. High school students from all over Washington attended the full-day event at the University of Washington. Huber gave two workshops on "Dams, Salmon & Energy." About 150 students attended each program.

Bell Substation folks gave 10 Spokane Community College students tours of their site. Several field employees volunteered for science bowls and school science fairs held around the region in the past two months. And several folks from field offices also worked at career fairs to help at BPA job information and recruiting booths.

Many employees volunteer for the high school and middle school science bowls in the Portland area. But besides those programs that BPA officially sponsors, a number of BPA folks help at many other education programs in the metro area.

John Quinata is an electrical engineer at Ross. He volunteers for several programs. "I like to

People put BPA in education forefront

BPA sponsors special programs for schools and cooperates with local school districts on many education efforts. And dozens of BPA employees across the Northwest volunteer for school programs to help educate youth of all ages.

Two major annual programs have their own specific setup. Derroll Johns of the Transmission Business Line coordinates the regional science bowls for high schools and middle schools in Oregon each year. And Andy Thoms from the environment, fish and wildlife group leads BPA's Kids in the Creek

outdoor classrooms that are held around the region.

Many other folks volunteer for school projects where they work. And at Portland headquarters, Phyllis Evans of regional relations coordinates education outreach with school districts and other groups in the Portland metro area.

The *Circuit* has had articles and photos on the science bowls and Kids in the Creek

programs in recent years. This edition covers some of the programs Evans handles at Portland and some of the people who volunteer for them. Another article reports on some of the other folks who serve education in their communities.

From work to their rural home at Deer Island, Ore., Jan Brady and her husband, Robert Anderson, have a daily commute of 45 miles each way. Both work in BPA's Power Business Line at Portland. Brady is a supervisor in PBL's business strategy group and Anderson works in the western power hub of marketing.

The couple settled on their 15-acre Aviswood Farm about six years ago. Both had spent time on farms with friends or relatives in their youth, and they liked the idea of living on a farm. Raising a few sheep was Anderson's idea. Brady already had an interest in spinning and knitting, and soon found herself up to her armpits in fleece.

The flock started with "two cheap ewes of dubious heritage" says Brady. "If we managed to kill them from stupidity, we wouldn't be out a great deal of money." The sheep survived the trial, and the Andersons graduated to purebred Shetland sheep. They now have 12 ewes, two rams and two wethers (neutered rams). And they also have a llama, named Percy, who guards the flock from coyotes and other predators.

This spring 10 of the 12 ewes should produce 20 lambs. Lambing lasts two to three weeks beginning about mid-April. Brady keeps a calendar of when the ewes were in season so she and Anderson know when to expect the lambs. She has found some interesting nuances with their sheep.

The time of day a lamb is born is influenced by when its mother is fed. "Feeding at the same times for a month before the ewe's due date seems to set its clock," Brady says. She has kept records over the years, and most of the lambs at Aviswood Farm are born either between 4 a.m. and 8 a.m. or between 4 p.m. and 8 p.m.

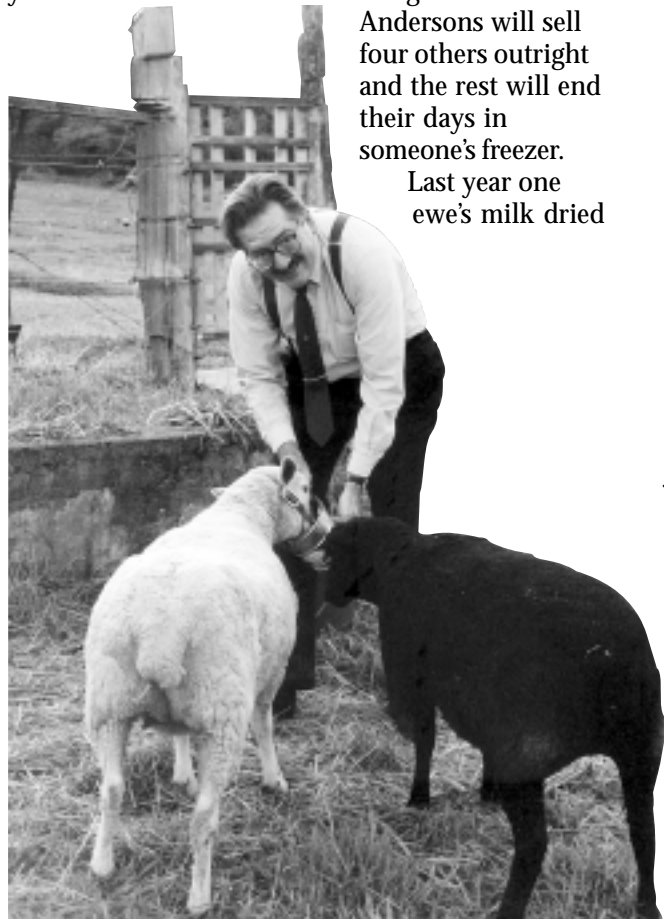
Brady is usually present to help a ewe deliver its first lamb, but experienced ewes prefer to manage on their own. The ewes learn to go to a special birthing stall, called a lambing jug, when they are close to time. Brady keeps a close eye on them for signs of imminent birth. When she sees a ewe is ready, Brady leads it into the lambing jug where the ewe stays until it lambs. The next year, the ewe will remember where to go.

A year or so ago, one ewe took a dislike to Brady. When it was time to give birth, it went into the barn. She looked at the lambing jug, looked at Brady who was standing nearby, and ran off into the woods. Brady sat on a stump in the middle of a downpour and waited for the lambs to be born so she could bring them into the barn. She named them Flora and Fauna after their birthplace.

The Andersons have a working farm and they raise sheep for wool and for meat. Four of this year's lambs are earmarked for neighbors. The

Andersons will sell four others outright and the rest will end their days in someone's freezer.

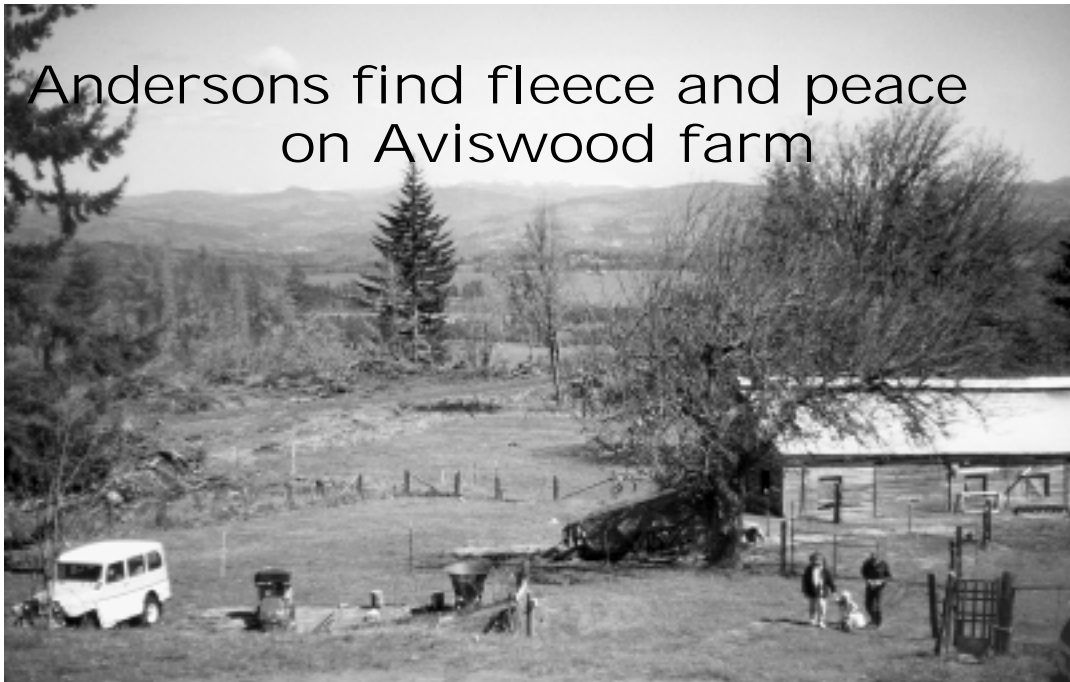
Last year one ewe's milk dried



Hungry sheep sometimes don't give Robert Anderson and his wife, Jan Brady, time to change clothes when they get home from work at BPA.

Photo by Jan Brady

Andersons find fleece and peace on Aviswood farm



up, so her twin lambs, Harley the ram and Precious the ewe, were temporary house pets. When they were days old, they had to be fed goat's milk by bottle. "For weeks they replaced our alarm clock, hollering for their milk at 5 a.m.," Brady says. Their nursery was the basement.

The neighbor girls came over at noon and fed the lambs, and Brady and her husband fed them two more times after work. When the lambs learned to climb stairs, they got into the kitchen if the basement door was left open. After a month, the Andersons put them out in the pasture, but Brady says to this day they'll sneak into the house if they find a door left open.

Brady says the best time of year on the farm is when the lambs are about a month old. The babies race and jump around the pastures and delight the children who visit in the spring. "Our patient



Jan Brady with twin lambs at her Aviswood Farm and showing her skill at the spinning wheel.

llama puts up with lambs using his broad back as a place for playing king of the mountain. It's not unusual to see three or more little guys standing on his back while he's lying down," Brady says.

In some ways, life on the farm is easy according to Brady. But it's also a lot of work. In winter, the animals have to be fed regardless of the weather, the flu or vacation schedules. It means sacrifice, Brady says. "We do get away. Just not so much in the winter," she says. And, though lambing is usually trouble free, sometimes it's difficult or has problems. A first-time mother can have trouble, a lamb may not live, the birth comes in the middle of the night or it may come in the middle of the woods, as with Flora and Fauna.

Besides the sheep and llama, the Andersons have other farm animals. The farm produces several hogs each year, and they have four cats that just showed up to visit.

The wool business

Brady's main interest in their sheep is the wool. She uses much of it for her own projects or sells it (up to 30 pounds a year at \$8 to \$10 per pound) over the Internet. She is on several e-mail lists relating to sheep, wool or spinning.

Brady learned how to make yarn as a member of 4-H. She's taken classes since then and attends several sheep and wool shows each year. She recently added weaving to her repertoire, picking up that skill through classes at the Oregon College of Art and Craft.

Brady can process the wool from shearing to finished product. She took a week-long shearing course several years ago but has decided to

keep her day job. A professional shearer recently sheared the Aviswood sheep. He does about 2,000 sheep each year at farms around the area in the spring and fall. The sheep yield from three to five pounds of wool each.

Preparing the wool is time consuming. "Some spinners like to spin 'in the grease,' but I'm not one of them," Brady says. "I wash small batches of fleece in net bags in hot soapy water, several rinses, and then leave it to dry naturally. Depending on what kind of yarn I wish to spin, I'll either comb the wool or card it. Combing makes very smooth, hard yarn, and carding makes

soft, puffer yarn."

Brady uses different spinning wheels depending on the result she desires. She currently has two wheels. Her "workhorse" is a Schacht Double Treadle Castle Wheel and she uses a Reeves Saxony wheel for "fine spinning of wool, cotton, and silk."

Robert's help and interests

So what does Robert Anderson think about their farm life? He was all for moving from an oversized city lot to 15 acres in paradise. And the sheep were his idea. Shetlands were their choice after he talked with a rancher friend in central Oregon on the merits of raising sheep versus pigs or chickens. The maintenance issue was the prime concern. Sheep are easier to raise than many other animals.

"On the whole, it's been a good experience,"



Photos by Robert Anderson

Anderson says. He thinks Shetlands are smarter than some sheep. "They don't have the classic surrender reflex that many sheep have," he says. "They don't file into the barn and stand quietly while being sheared. It takes strength to hold down a 75 pound struggling animal. Some of the wethers weigh up to 150 pounds."

Anderson says the sheep can be stubborn, can hold grudges and can be impatient – much like humans. One ewe about to give birth went into the barn and found the gate to the lambing jug closed, he says. "She stood there and stomped and pawed the ground and glared at Jan until she opened the gate."

Anderson does his fair share of sheep patrol. And he holds down the sheep during shearing and vaccinations. He helps with some of the lambing, but the bulk of that falls to Brady. Anderson does most of the farm repairs and upkeep on the outbuildings.

What really gets him excited is thinking about animals on another continent. Anderson has taken three safari trips to Africa since the mid 1980s. He enjoys safari trips and the hunting that is closely regulated in African countries. He pays fees from \$800 to \$1,500. The *Circuit* of Oct. 1987 had an article about his first safari trip.

Until Anderson can take his next trip to Africa, he'll have to settle for their weekday work commutes for any resemblance to the wild side of a jungle trip. But then he and Brady can retreat to the peace and calm of their farm in the country – away from the concrete jungle. ◀

Jean Oates is a public utilities specialist in the Power Business Line

Where is he now?

Bryant turns VSI into life of art and adventure

Samuel Bryant left BPA just three years ago. And just like some others who do *not* retire from the agency, he has been busy ever since. Many BPA folks will remember Bryant. He was a one-man audiovisual department at the Ross Complex from 1979 to the early 1990s. He then moved to headquarters and



(Left) Sculptor E.C. Ndoro is well known in Zimbabwe. His twin works of a Shona woman and Shona man are both in rare green verdite, known as African green gold. (Right) Zimbabwe artist Richard Mufumha at his outdoor studio and house with his new piece, "Image in stone."

Photos by Samuel Bryant

worked in audiovisual with Nick Christmas and Bill Murlin. Later he went to the Equal Employment Opportunity office (today's diversity group) where he did training and workshops on racism. Then he met Zimbabwe. "My son's wife has family in Zimbabwe," Bryant says. "They met when he was at the Air Force Academy and she was attending Colorado College. When we went to Zimbabwe to meet her parents, I fell in love with the country. I've been back at least once a year since." Why does he keep going back? "The beauty," Bryant says. "It was nice and fresh and crisp, and the people were so loving to me and so open." And then there is the art. An artist himself, Bryant fell in love with the Zimbabwean tradition of carving stone. He organized a couple of art shows of the sculpture in Portland and found a ready response. So he took a Voluntary Separation Incentive (VSI) early out.

April anniversaries

35 years

Jerry R. Willis, Temporary Substation Operator, Substation Operations – The Dalles
Charles T. Wedick, Supervisory Electrical Engineer, Transmission Lines, Portland

30 years

Catherine L. Johnson, Distribution Facilities Specialist, Materials Management, Vancouver
Michael L. Montgomery, Supervisory Construction Representative, Facility Development, Vancouver
William Hayden, Generation Dispatcher, Dittmer Dispatch, Vancouver
John T. Bolitho, Computer Specialist, Control Center Hardware Maintenance, Vancouver
Gary A. Boyd, Power system Control Craftsman, Control Center Hardware Maintenance, Mead

25 years

Carrie B. Harris, Computer Specialist, Operation Services, Portland



Portland's Sam Bryant (center) and African sculptor Nicola Mukomberanwa (left) face other Zimbabwe artists on retreat at Mukomberanwa's farm.

In May 1997, just a month after he left BPA, he opened his own art gallery in Portland. "I felt like I really wanted to do something more with my life than work for someone else," Bryant says. His Red Eagle Gallery is located at 1034 SW Taylor, on the south side of the main downtown library. He exhibits works in many kinds of stone, from soapstone to verdite and fruit opal. Bryant also sells baskets from Zimbabwe and some jewelry from Mali, Kenya

and the Taureg people of Mauritania. "I visit artists in Portland's sister city Mutare, in the east of Zimbabwe, then travel northwest as far as Victoria Falls and south to the border where Zimbabwe and South Africa meet," Bryant says. And he brings only the best stone sculptures back to Portland. In his latest trip to Zimbabwe, this February, Bryant visited an artists' retreat in a remote section of Nicolas Mukomberanwa's farm. Mukomberanwa is Zimbabwe's foremost master sculptor today. He is an internationally known artist and his works sell for thousands of dollars. Mukomberanwa takes fellow artists on month-long retreats once a year for inspiration. They get away from the collectors and the tourists. They feel they can get closer to their ancestors when they're out in the bush. "Most of these guys believe their ancestors speak to them through visions and dreams," Bryant

says. "Their ancestors will tell them what to take out of the stone. Sometimes when they work in the stone, inspiration will come with the first hammer blow on the chisel." At Mukomberanwa's retreat, Bryant says, "He and I sat on stools while others sat on the ground as a sign of respect. They welcomed me as one of their own, and it was a great honor for me. I really respect these artists a lot." Another artist Bryant visited this year was Richard Mupumha. He was just back from a tour of Europe when Bryant visited his home and studio. Bryant says his daughter-in-law's family lives in a village in south central Zimbabwe. They have acreage, own cattle and farm corn and vegetables. He's a retired head-

Gallery name inspired

Samuel Bryant tells a story that spans time and two continents and led to a spiritual inspiration for naming his Red Eagle Gallery. "My son graduated from the Air Force Academy in 1994. Around then I had a photo assignment to videotape BPA substations. I was at a store on the Nez Perce reservation in Idaho. I saw an Indian fellow, but when I turned to look at him, he was gone."



Samuel Bryant in his Red Eagle Gallery with some of the Shona sculptures he sells from his trips to Zimbabwe and elsewhere.

Photo by Lynn Baker

Sometimes when God speaks, he speaks real loud. It's been a blessing for me ever since."

master. She teaches elementary school where the kids wear uniforms. "The school has no electricity but the kids are learning," Bryant says. Zimbabwe has an 87-percent literacy rate. When visiting his daughter-in-law's family one Saturday before church, Bryant says, "this chicken kept running into the house. The mother kept shoohing it out. When we returned from church, there was that same chicken on the couch. When we shoohed it off, there was an egg. Dinner that night was fried chicken." In his spare time – between running his gallery and traveling – Bryant is active in Oregon Uniting, a nonprofit group that is working for racial justice and reconciliation. He welcomes BPA folks to visit him at his gallery or to contact him by e-mail. His e-mail address is Samuel@RedEagleGallery.com. His Web site is www.redeaglegallery.com. Bryant likes his life after BPA. "I'm working for myself, working around art that I love and meeting wonderful people from all over the world," he says. "Of course, I'm not making as much money as I want to, but I'm paying the bills and having a great time. I would recommend this to anyone." ◀

Lynn Baker is a writer in communications and edits *Hot Issues*

Evelyn V. Hartman, Public Utilities Specialist, Information System Development, Portland
Audrey M. Perino, Industry Economist, Financial Management, Portland
Timothy J. Scanlon, Market Lead-Federal Agencies, Customer Services, Seattle
Larry G. Boyd, Line Equipment Operator A, Chemawa
Patrick J. Pyatt, Lineman, Olympia
William E. Brock Jr., Power System Control Craftsman, Malin
Robert C. Lahmann, Customer Account Executive, Transmission Marketing & Sales, Vancouver
Jack W. Richey, Customer Account Executive, Transmission Marketing & Sales, Vancouver
Carol M. Hawkins, Public Utilities Specialist, Transmission Supply, Vancouver

10 years

Murray D. Lindstrom, Electrician, Central Electrical Services, Vancouver
Gavin E. Beppe, Electrical Engineer, Snohomish
Garett D. Rehbein, Electrician Foreman I, Substation Maintenance-Bell

Dana R. Wolfe, Electrician Foreman I, Substation Maintenance, Bell
Jacqueline D. Linson, Public Utilities Assistant, Transmission Billing, Vancouver.

Retirements

Thomas J. Clune, Columbia Basin Fish and Wildlife Authority Deputy Director, Fish & Wildlife Program, EF&W, retired Feb. 25 with 21 years service.
Annette Cripe, Engineering Technician, Transmission Business Line, Operations & Planning, retired Feb. 29 with 21 years service.
Brian G. Hanneman, Electrical Engineer, Control Center Software Design, retired March 3 with 34 years service.
Shirley J. Rise, Personal Assistant, Capital and Risk Management, retired Feb. 25 with 21 years service.
David L. Sakala, Substation Operator, Transmission Field Services, retired March 31 with 34 years service.
Val H. Smith, Engineering Technician, Generation Supply, retired March 30 with 20 years service.
Jack L. Strayer, Manager, Audit, retired Feb. 29 with 33 years service.

Young at heart make reunion fun



Photos by Sherry Lind

One thing you can count on at the St. Patrick's Day reunion is some antics, laughter and story telling from retirees and current employees alike. The young at heart who get together every year or so to swap tales make the annual BPA gathering fun and memorable.

This year the *Circuit* asked some more recent retirees what they've been doing in the two, three

or so years since they left BPA. Three men had quite different "futures" the past few years.

Terry Bellerby retired from Transmission in 1996. He had been active in many volunteer activities while at BPA. So the logical assumption was that we'd find Bellerby delivering a box of goods to the poor, helping a kid swing a bat, or helping a dyslexic boy learn how to read.

While he does volunteer for some things, Bellerby now has an almost full time job. And it's not with his engineering shingle. Instead he sells real estate, and he "really likes it."

Next we saw Mike Weber who retired from contracting in 1994. He's an easy person to remember on St. Patrick's Day because it's his birthday. He has some news to share – after about 20 years of single life, Weber met the right person and married

again – last October. To top it off, he met his wife, Erena, through a blind date arranged by his daughter in Seattle.

Today the Weber's act like *real* retirees. They spend the winter months, from Oct. 15 to March 8 every year, in Puerto Vallarta, Mexico. The rest of the year they're back at home in Beaverton, Ore.

The last recent retiree we got to visit with before lunch and the speeches started was Ron Holeman. He retired in 1998 from generation supply. He said he was busy in his first year off, "doing all the things I didn't get to do for 30 years." Like rebuilding a 1950 Ford car.

But the first order for Holeman after retirement was a big trip with his wife to Australia and New Zealand. In his second year, he has been very interested in finding the places where he lived as a small child and where his parents came from and grew up. So he set out for Nebraska and visited small towns – Talmage, Tecumseh, Beatrice, Malcolm, Hebron.

Holeman has fond memories of his recent ventures, and will continue to search out his and his parents' roots. "I'll ask around in a small town where a certain house was located from an old photo we had, and sure enough, someone could point it out and tell the background of it," he says.

This year's reunion also had some senior retirees who would be familiar to most people. Former administrator Chuck Luce was there. So, too, was former historian Gus Norwood. And a whole bunch more of retirees from the past one to 30 years and more.

Yep! The annual reunion is a good place to go for lunch and a stroll down memory lane. If you haven't attended one yet, maybe next year? It's open to current employees as well as retirees. ◀

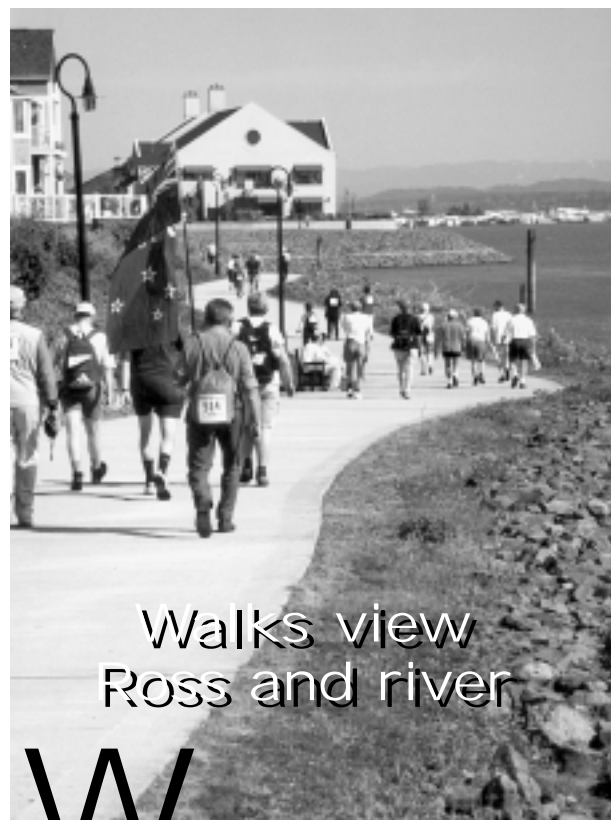


Photo by Jack Odgaard

Walks view Ross and river

Walkers from around the world and the U.S. will take part in Vancouver's annual Discovery Walk Festival this month. BPA and several of its employees will help host the fourth international event, on April 21-23.

The April 22 marathon route crosses the Ellen Davis Trail and Ross Complex, before ending along the Columbia River. BPA's Construction Services Building is a break station for the event that will again have military groups from Germany, the Netherlands and Belgium. Several BPA volunteers help organize and put on the event.

Other BPA folks walk in the events that are open to everyone. The Friday, April 21, 10-kilometer friendship walk is a warm-up for the weekend. Walkers can start between 4 p.m. and 6 p.m. that day.

Saturday and Sunday walks offer a choice of distances – from 42-km marathon routes, to 32-km (20 miles), 21, 10 and 5-km events. Start times stagger by half-hours, beginning with the 7 a.m. marathon event. Walkers for the 20-km and shorter walks can start anytime between 10 a.m. and noon.

The registration, start of all events and festival entertainment all take place at the Inn at the Quay Centennial Center. For more details check the Discovery Walk Web site at: <http://www.discoverywalk.org>. ◀

Some words about PCs

Many words we use today,
Most of us wouldn't know,
When they didn't mean the same
Just a few short years ago.

When a tiff was a minor spat
Before we had PCs,
Hacker was someone without a skill –
We knew these words with ease.

An application was for a job,
A program was a TV show.
A curser used profanity,
A keyboard was a piano.

Compress was what you did to garbage,
Not something you did to a file.
And if you unzipped anything in public,
You'd be in jail for a while.

Log on was adding wood to a fire,
Hard drive was a long trip on the road.
A mouse pad was where a mouse lived,
And a backup happened to your commode.

We cut things then with scissors,
And pasted them with glue.
A web was a spider's home,
And a virus was the flu.

If there's an old word you like a lot,
Just hang on and wait for a while.
Cyberspace, the Net and technocrats
Will soon bring it back into style.

— Some Web poets.

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